



Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137



November 22, 2019

Federally Enforceable District Origin Operating Permit (FEDOOP) Statement of Basis

Source: Indratech
2801 Constant Comment Place
Louisville, KY 40299

Owner: Indratech of Kentucky, LLC
2801 Constant Comment Place
Louisville, KY 40299

Application Documents:	See Table I-9	Administratively Complete:	June 12, 2019
Draft Permit:	October 17, 2019	Proposed Permit:	October 17, 2019
Permitting Engineer:	Shannon Hosey	Permit Number:	O-1295-19-F
Plant ID:	1295	SIC:	2221, 3296
		NAICS:	313230, 327993

Introduction:

This permit will be issued pursuant to District Regulation 2.17- Federally Enforceable District Origin Operating Permits. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

This permit action renews the STAR exempt FEDOOP.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO₂), carbon monoxide (CO), particulate matter less than 10 microns (PM₁₀), and particulate matter less than 2.5 microns (PM_{2.5}). Jefferson County is classified as a nonattainment area for ozone (O₃). This facility is located in the portion of Jefferson County that is an attainment area for sulfur dioxide (SO₂).

Permit Application Type:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> Permit Revision	<input checked="" type="checkbox"/> Permit renewal
	<input type="checkbox"/> Administrative	
	<input type="checkbox"/> Minor	
	<input type="checkbox"/> Significant	

Compliance Summary:

<input checked="" type="checkbox"/> Compliance certification signed	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Source is out of compliance	<input checked="" type="checkbox"/> Source is operating in compliance

I Source Information**1. Product Description:**

Indratech manufactures non-woven textile matting for automotive and acoustical applications.

2. Process Description:

Polyester and glass fibers are received in baled format, then fibers are air laid on to mat surface, nip rolled to the desired thickness and passed through an oven (heated by natural gas) to thermoset fibers to backing mat material. The two production lines have exhaust points from the ovens through stacks through the roof top. All other processes up-stream and down-stream of the oven are controlled by fabric filter baghouses exhausting indoors. An “off-line” gluing machine supports both lines in the application of a low VOC hot melt adhesive for adhering to certain laminates for the finished products.

3. Site Determination:

There are no other facilities that are contiguous or adjacent to this facility.

4. Emission Unit Summary:

Emission Unit	Equipment Description
U1/U2	<p>AVM Production Line I</p> <ul style="list-style-type: none"> • Five (5) bale openers • One (1) regrind mill • One (1) receiver/separator • Two (2) sheet formers • Two (2) edge trimmer • One (1) fiber conveyor system • One (1) oven • One (1) cooler • One (1) laminator • One (1) winding machine <p>AVM Production Line II</p> <ul style="list-style-type: none"> • Five (5) bale openers • One (1) regrind mill • One (1) receiver/separator • Two (2) sheet formers • Two (2) edge trimmer • One (1) fiber conveyor system • One (1) oven • One (1) cooler • One (1) laminator • One (1) winding machine

Emission Unit	Equipment Description
U3	One (1) off-line gluing machine
U4	Three (3) die cut stamping presses Two (2) grinders/balers with integrated fabric filters

5. Fugitive Sources:

The fugitive sources identified by the source are from the oven, cooler, off-line glue machine, and the die cut stamping presses.

6. Permit Revisions:

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
411-05-F	05/14/2007	06/30/2007	Initial	Initial Permit Issuance
411-05-F (R1)	07/03/2014	08/06/2014	Renewal	411-05-F Renewal and incorporation of construction permits 184-07-C and 72-10-C
O-1295-19-F	10/17/2019	11/22/2019	Renewal	Permit Renewal

7. Application and Related Documents

Document Number	Date	Description
98602	06/04/2019	Application Renewal

8. Emission Summary

Pollutant	Potential Emissions (tpy) (2019)	Pollutant that triggered Major Source Status (based on PTE)
CO	1.73	No
NO _x	2.06	No
SO ₂	0.01	No
PM ₁₀	358.38	Yes
VOC	34.21	No
Total HAPs	5.91	No
Single HAP > 1 tpy		

Pollutant	Potential Emissions (tpy) (2019)	Pollutant that triggered Major Source Status (based on PTE)
Xylene	4.56	No

9. Applicable Requirements

- | | | | | | |
|--------------------------|-----------|-------------------------------------|-----------------|--------------------------|-----------|
| <input type="checkbox"/> | 40 CFR 60 | <input checked="" type="checkbox"/> | SIP | <input type="checkbox"/> | 40 CFR 63 |
| <input type="checkbox"/> | 40 CFR 61 | <input checked="" type="checkbox"/> | District Origin | <input type="checkbox"/> | Other |

10. Referenced Federal Regulations:

The source has no federal requirements.

11. Non-Applicable Regulations:

None

II Regulatory Analysis

1. Stratospheric Ozone Protection Requirements:

Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. Indratech does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

2. Basis of Regulation Applicability

a. Applicable Regulations

Regulation	Title	Basis
2.17	Federally Enforceable District Origin Operating Permits	
5.00	Definitions	Regulation 5.00 establishes emission limits for exempt "stationary sources" that would otherwise be subject to the STAR Program environmental acceptability goals.
7.08	Standards of Performance for New Process Operations	Regulation 7.08 establishes emission standards for processes that emit PM which were constructed after September 1, 1976.
7.25	Standard of Performance	Regulation 7.25 establishes

Regulation	Title	Basis
	for New Sources Using Volatile Organic Compounds	requirements for VOC for equipment installed after June 13, 1979.

b. Plantwide

Indratech is potentially major for PM₁₀. Regulation 2.17 – *Federally Enforceable District Origin Operating Permits* establishes requirements to limit the plant wide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements. The source requested limits of PM₁₀ less than 100 tons per year, to be classified as a synthetic minor (FEDDOOP) source.

Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establish requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. Indratech has requested emission limits of less than 25 tons per year for all criteria pollutants, less than 12.5 tons/year for total HAPs and less than 5 tons per year for each individual HAP to be considered exempt from local TAC (STAR) regulations, as defined by Regulation 5.00, section 1.13.5.

Regulation 2.17, section 5.2, requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the district upon request.

Regulation 2.17, section 7.2, requires stationary sources for which a FEDDOOP is issued to submit an Annual Compliance Certification by April 15, of the following calendar year. In addition, as required by Regulation 2.17, section 5.2, the source shall submit an regular reports to show compliance with the permit, by March 1 of the following calendar year. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.1.

c. Emission Unit U1/U2 – AVM Production Line I and Production Line II

EP	Description	Applicable Regulations
U1-E1	Bale Opener	7.08
U1-E2	Bale Opener	7.08
U1-E3	Bale Opener	7.08

U1-E4	Bale Opener	7.08
U1-E5	Bale Opener	7.08
U1-E6	Regrind Mill	7.08
U1-E7	Receiver/Separator	7.08
U1-E8	Sheet Former	7.08
U1-E9	Sheet Former	7.08
U1-E10	Edge Trimmer	7.08
U1-E11	Edge Trimmer	7.08
U1-E12	Fiber Conveyor System	7.08
U1-E13	Oven	7.25
U1-E14	Cooler	7.25
U1-E15	Laminator	7.25
U1-E16	Winding Machine	NA
U2-E1	Bale Opener	7.08
U2-E2	Bale Opener	7.08
U2-E3	Bale Opener	7.08
U2-E4	Bale Opener	7.08
U2-E5	Bale Opener	7.08
U2-E6	Regrind Mill	7.08
U2-E7	Receiver/Separator	7.08
U2-E8	Sheet Former	7.08
U2-E9	Sheet Former	7.08
U2-E10	Edge Trimmer	7.08
U2-E11	Edge Trimmer	7.08
U2-E12	Fiber Conveyor System	7.08
U2-E13	Oven	7.25
U2-E14	Cooler	7.25
U2-E15	Laminator	7.25
U2-E16	Winding Machine	NA

i. Standards and Operation Limits**(1) Opacity**

Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%, for processes that commenced construction after September 1, 1976.¹

(2) PM/PM₁₀

The emission standard for PM for the equipment in the emission unit was determined in accordance with Regulation 7.08, section 3.1.2 as follows:

$$\text{PM lb/hr limit} = 3.59 * (\text{process weight, tons/hr})^{0.62}$$

(3) VOC

(a) VOC emissions from emission points U1-E13, U1-E14, U1-E15, U2-E5, and U3-E1 subject to Regulation 7.25 cannot exceed five (5) tons, plantwide, during any consecutive 12-month period unless a BACT is submitted and approved.

(b) A BACT was submitted on April 21, 2003 and VOC emissions from Emission Points U2-E13/U2-E14 are limited to 9.94.

d. Emission Unit U3 – Gluing Operation

EP	Description	Applicable Regulations
U3-E1 (IA)	Off-line Glue Machine	7.25

i. Standards and Operation Limits**VOC**

VOC emissions from emission point U3-E1 (IA) subject to Regulation 7.25 cannot exceed five (5) tons, plantwide, during any consecutive 12-month period unless a BACT is submitted and approved.

e. Emission Unit U4 – Auxiliary Production Equipment

EP	Description	Applicable Regulations
U4-E1	Die Cut Stamping Press	7.08
U4-E2	Die Cut Stamping Press	7.08

¹ The permit does not contain monitoring for opacity due to no historical visible emissions issues.

U4-E3	Die Cut Stamping Press	7.08
U4-E4	Grinder/Baler, with integrated control	7.08
U4-E5	Grinder/Baler, with integrated control	7.08

i. Standards and Operation Limits

(1) Opacity

Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%, for processes that commenced construction after September 1, 1976.²

(2) PM/PM₁₀

The emission standard for PM for the equipment in the emission unit was determined in accordance with Regulation 7.08, section 3.1.2 as follows:

$$\text{PM lb/hr limit} = 3.59 * (\text{process weight, tons/hr})^{0.62}$$

III Other Requirements

1. Temporary Sources:

The source did not request to operate any temporary facilities.

2. Short Term Activities:

The source did not report any short term activities.

3. Emissions Trading:

The source is not subject to emission trading.

4. Alternative Operating Scenarios:

The source did not request any alternative operating scenarios.

5. Compliance History:

There are no records of any violations of the terms of the present or prior construction or operating permits.

6. Calculation Methodology or Other Approved Method:

Generally, emissions are calculated by multiplying the throughput (ton, MMCF, gallons, etc.) or hours of operation of the equipment by the appropriate emission factor and accounting for any control devices unless otherwise approved in writing by the District.

² The permit does not contain monitoring for opacity due to no historical visible emissions issues.

Table 1-U1/U2

Emission Point	Description	Emission Factor/Calculation Methodology
U1-E1	Bale Opener	Based on collector clean out information history of 1 lb/hr of fibers collected at 850 lb/hr of operation and 95% control PM/PM ₁₀ = 0.12 lb/ton fiber
U1-E2	Bale Opener	
U1-E3	Bale Opener	
U1-E4	Bale Opener	
U1-E5	Bale Opener	
U1-E6	Regrind Mill	
U1-E7	Receiver/Separator	
U1-E8	Sheet Former	
U1-E9	Sheet Former	
U1-E10	Edge Trimmer	Based on collection drum studies of 34 lb/hr of fibers exhausted at 5,000 lb/hr of operation and 95% control PM/PM ₁₀ = 0.68 lb/ton fiber
U1-E11	Edge Trimmer	
U1-E12	Fiber Conveyor System	
U1-E13	Oven	Based on 0.069 wt% organic fiber content all assumed to liberate 100% as VOC and AP-42 natural gas emission factor. VOC = 1.38 lb/ton fiber
U1-E14	Cooler	
U1-E15	Laminator	Production rate times maximum content in adhesive used on the non-woven facer mat
U1-E16	Winding Machine	NA
U2-E1	Bale Opener	Based on collector clean out information history of 1 lb/hr of fibers collected at 850 lb/hr of operation and 95% control PM/PM ₁₀ = 0.12 lb/ton fiber
U2-E2	Bale Opener	
U2-E3	Bale Opener	
U2-E4	Bale Opener	
U2-E5	Bale Opener	Based on collector clean out information history of 1 lb/hr of fibers collected at 850 lb/hr of operation and 95% control
U2-E6	Regrind Mill	

Emission Point	Description	Emission Factor/Calculation Methodology
U2-E7	Receiver/Separator	PM/PM ₁₀ = 0.12 lb/ton fiber
U2-E8	Sheet Former	
U2-E9	Sheet Former	
U2-E10	Edge Trimmer	Based on collection drum studies of 34 lb/hr of fibers exhausted at 5,000 lb/hr of operation and 95% control PM/PM ₁₀ = 0.68 lb/ton fiber
U2-E11	Edge Trimmer	
U2-E12	Fiber Conveyor System	
U2-E13	Oven	Based on 0.069 wt% organic fiber content all assumed to liberate 100% as VOC and AP-42 natural gas emission factor. VOC = 1.38 lb/ton fiber
U2-E14	Cooler	
U2-E15	Laminator	Production rate times maximum content in adhesive used on the non-woven facer mat
U2-E16	Winding Machine	NA

Table 1-U3

Emission Point	Description	Emission Factor/Calculation Methodology
U3-E1 (IA)	Off-line Glue Machine	Production rate times 0.1% loss based on testing of EVA glue weight loss

Table 1-U4

Emission Point	Description	Emission Factor/Calculation Methodology
U4-E1	Die Cut Stamping Press	(Production rate) x (Linear Feet of Blade per Die) x (Die Cut Blade Width) x (Material Density) PM Emission Factor: 0.1% loss
U4-E2	Die Cut Stamping Press	
U4-E3	Die Cut Stamping Press	
U4-E4	Grinder/Baler, with integrated control	PM loss for Grinders: 0.1% loss PM loss for Balers: 0.01% loss
U4-E5	Grinder/Baler, with integrated control	

7. Insignificant Activities:

1. Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.
2. Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.
3. The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.
4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
5. The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.
6. The District has determined that no monitoring, recordkeeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.